TITLE OF INVENTION

I.V. Sleeve

An open ended elasticized device, tubular in shape, designed to encompass, protect, retain, and compress site and or deliver medication to an extremity, appendage or thorax of a human or animal.

CROSS REFERENCE TO RELATED APPLICATIONS

U.S. Patent Documents

3416518	Dec., 1968	Samuels	602/3.
5143762	Sep., 1992	Ho	128/846.
5228851	Jul., 1993	Burton	604/171.
5592953	Jan., 1997	Delao	602/3.
2169203	Aug., 1939	Hinchliff	66/178.
2704069	Mar., 1955	Donelan	128/881.
4016027	Apr., 1977	Kintanar	2/159.
4133624	Jan., 1979	Heavner et al.	425/275.
4287608	Sep., 1981	Meyer	2/16.
4315504	Feb., 1982	Drennan	128/881.
4646727	Mar., 1987	Chambers	128/882.
4856112	Aug., 1989	Effle	2/59.
4926851	May., 1990	Bulley	128/157.
4971233	Nov., 1990	Keenan	223/111.
4991593	Feb., 1991	LeVahn	128/856.

5016648	May., 1991	Brown	128/879.
5063919	Nov., 1991	Silverberg	602/3.
5187813	Feb., 1993	Klein	2/16.
5357633	Oct., 1994	Rael	2/16.

BACKGROUND OF THE INVENTION

1. Field of Invention

The invention relates to a open ended elasticized device, tubular in shape, designed to compress, encompass, protect, retain, site and or deliver medication to an extremity or thorax of a human or animal.

2. Description of Prior Art

There have been many previous devices for the protection of extremities, appendages or thorax for humans or animals in protecting articles and site from contamination or for preventing water, dirt or hazardous articles from contaminating the site. The suggestion of a single closed-ended bag, glove like device and open-ended tubular device with sealable or elasticized ends presently exists with all of the following patents. 5357633, 5187813, 5063919, 5016648, 4991593, 4971233, 4926851, 4856112, 4646727, 4315504, 4287608, 4133624, 4016027, 2704069, 2169203, 5592953, 5228851, 5143762, 3416518. Each of the prior art products although being able to protect extremities from contamination are flawed and limited in their design. The various prior art configurations do nothing to fully compress the site. Compression of the medical site is required to facilitate holding an Intra Venous item, compressing the wound in the event of bleeding, delivery of medication via impregnation to the I.V. Sleeve itself. Compression throughout

the entire extremity, thorax and site is as well required in the event of product failure. On all prior art, failure of an elasticized end or puncture to the product would render such product inoperable and useless. The I.V. Sleeve is designed to maintain its integrity even in the event of a tear or puncture.

In addition the I.V. Sleeve is designed to facilitate the manufacturing and field use process by using a simple pre-existing and time proven manufacturing process that not only pre packages and protects the I.V. Sleeve from contamination, but allows it to be carried in to the field in a disposable pack like that of a Handy-Wipe or condom.

Prior art product have as well failed to maintain pace with modern medicine. All prior art fails to deliver medication to the site. The I.V. Sleeves ability to fit skin tight and its ability to be manufactured using a vast number or different materials allows it to be impregnated with medication so that such medication can be delivered through skin absorption. Unlike prior art product the I.V. Sleeve's ability to be manufactured from skin type products allows for exceptional seamless coverage and medication in the event of skin grafts required for large areas.

BRIEF SUMMARY OF THE INVENTION

The object of the invention is to have field usable cost effective product that can fully protect an extremity, appendage and thorax during pre and post medical procedures. The I.V. Sleeve is used for humans and animals. It compresses the entire wound or medical site to maintain the integrity of the procedure and to deliver medication when desired.

The I.V. Sleeve is manufactured with materials that fit the environmental parameters dictated by the wound or medical procedure in itself. In the event of grafts, the I.V. Sleeve is manufactured from skin. It can be waterproof yet breathable and maintains it's anti contaminant integrity even in the event of puncture or tear. Its elasticity allows for ability to protect a human thorax as well as a leg, arm or finger.

BRIEF DISCRIPTION OF THE DRAWINGS

FIG. 1 is an elasticized tub with openings at both ends.

DETAILED DISTCRIPTION OF INVENTION

The invention relates to a skintight form fitting tubular elastic material sleeve with openings at both ends for fitment onto appendages, extremities, neck or thorax for achieving complete site compression, protection, and for maintenance of integrity of such medical site, while as well delivering medication impregnated in the elastic material, and serving as the epidermal layer of a skin graph.

Whereas the I.V. Sleeve is manufactured from a group of elastic, pliable and expandable materials singularly and in combination such as rubber, latex, silicone, Gore-Tex, epidermal tissue, smooth muscle tissue, plastic and plastic components.

The I.V. Sleeve is cylindrical in shape with openings at both ends. Within 5cm to 60cm in length (FIG.1), 2.5cm to 80cm in diameter (FIG. 1A) and 1mm to 2mm in thickness for the purpose of surrounding skintight, compressing skintight, holding and protecting

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the medical site of different size appendages, neck and thorax. The fit and materials in the I.V. Sleeve are designed to form a resilient elasticized skintight cover over the medical site.

The I.V. Sleeve has multiple compression means contained throughout its circumference in the form of elastic bands that double the thickness and compression around the site without inhibiting the flow of circulation. The bands seamlessly manufactured into the sleeve of the same material help to maintain the integrity of the medical site and that of the I.V. Sleeve by adding 1mm to 2mm thick elastic material bands equidistant at 2.5cm from each other throughout the entire length of the I.V. Sleeve (FIG.1B). Made from the same material as the I.V. Sleeve the elastic bands circumference will be equal to the circumference of the body of the I.V. Sleeve (a ring around a tube) as to not disturb the comfort of the wearer yet enabling the I.V. Sleeve to increase its compression holding ability. The bands themselves are 2mm to 3mm wide as represented in FIG 1B. The material maintains enough elasticity to be stretched over extremity (foot, hand, and head) in order to reach the site and still be able to achieve complete site compression, protection and integrity while restricting movement of intravenous equipment.

In storage the I.V. Sleeve is outwardly rolled upon itself to form a lightweight elastic ring. Method of installation is that of first securing medical site with intravenous medical procedures, cleaning, medications etc. Then stretching the elastic ring over extremity and onto the site to be protected. You then unroll the I.V. Sleeve out from itself and onto and over the medical site. This finalizes the installation process.